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# Digital Transformation in the Insurance Sector: The Case of Turkey

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**Abstract:** Insurance, is an important financial sector that enables people or institutions to feel safe and economically and socially. Insurance is secure and that funds the country's economy. As in all sectors, understanding of digital service provision is also important in the insurance industry. The insurance industry is digital important in marketing to start implementation of the insurer is emerging as. It's easier to get the service from the Internet, using social media and the increased use of the Internet as they are insurance sector leads to digital applications. Thanks to digital insurance insurance companies integrate the knowledge of all kinds of customers can use a compatible. Be made to cross-sell customers digital applications supporting, also offers its customers rapid and practical solutions. Company strategy is going to change in any, organise and instantly inform a denial message. Insurance companies using the important dates of the customers can provide countercyclical. customers may receive over the internet to the policy, customers can bid and policy reviews. insurance companies sizes makes instant Damage solutions. However, thanks to social media and the internet comparison sites, exploring customers ' products and services, developed comparison capabilities. The way to become a digital company is understanding their clients and their way of expectations. Turkey insurance sector have been told in the presentation, That aren't available in Turkey and also in terms of entrepreneurship high potential digital internet sites can be determined by insurance companies to meet customer expectations for working with applications that are to be explained how digital and digital insurance to determine the level at which they are in.

**Keywords:** Insurance, Insurance Industry in Turkey, Digital Applications

## 1. Introduction

Approximately 4000 years ago in Babylonians insurance started as a result of people's trust requirements In the 19th century, fire insurances and in the 20th century the development of social insurance have been the subject. The convergence of financial institutions with different functions in modern financial markets and consequently the movement of banks and insurance companies are becoming more widespread.

Changing economic conditions and increased competition, banks didn't help the former profits and market share of standings. It's not just the banking field, all have mastered the concept of customer-oriented marketing in the market and changes in the clients ' requests, banks have dragged them into a continuous and difficult race (Balsöz, 2004, s. 1)

In recent years, seen an increase in competition with that rapid change and developments happening in parallel, especially in the service sector influence heavily. Along with this change, an important actor in financial markets is continuing its activities in the insurance sector, intense competition and their presence in the environment, the marketing activities of companies who want to succeed according to customer-focused strategy must specify (Akpınar, 2017, s. 45)

## **2. World Insurance Sector Evaluation**

People's future is full of uncertainties. What will happen in the future, what will happen to the people, it is not possible to determine in advance. Human beings may be subject to various hazards. This danger may be against accidents, illnesses, or belongings, such as fire, theft. These dangers compare people with risks, directing everyone to a search (Akay, 2001, s. 1).

In the face of many risks such as social, economic, and managerial risks, people wanted to take precautions and thus, they laid the ground for the formation of the concept of insurance. Insurance provides for the elimination of the losses due to the occurrence of risks in return for the determined premiums. In this way, it helps people to hold on to their future and life more firmly (Özüdoğru, 2017, s. 39).

According to the information provided by the Swiss Re, which has the most recent statistical figures of the world insurance sector, in the 2016 Sigma Report, 2016 was the year in which insurance developed in the world, but political risks were reflected in insurance again. In the world, real premium production in the insurance sector has increased by 3.1% to US \$ 4,732 trillion. 55% of the premiums come from life insurance and 45% from non-life branches. The life branch increased by 2.5% in real terms to \$2.62 trillion while the non-life branch increased by 3.7% to \$ 2.11 trillion.

The following table lists the Life and Non distribution of the total premium production branches across continents of the world and Turkey of 2016 are shown in the comparative size:

**Table 1. Distribution of World Premium Production (2016/12)**

<b>Billion (USD)</b>	<b>Life</b>	<b>Non Life</b>	<b>Total</b>
USA	678	937	1.615
EUROPA	859	611	1.470
Asia	1.000	493	1.494
Africa	41	20	61
Oceania	39	53	93
World	2.617	2.115	4.732
Turkey	1,6	11,4	13,0

Source: Swiss Re 2016 Sigma Report

The non-life premiums of the developed countries increased by 2.3% in 2016, while the life premiums contracted by 0.5%, resulting in a total premium production growth of 0,7%. Non-life premium growth of developing countries was 9.6%, life premium growth was 17%, and total premium production growth was 14%, maintaining steady rapid growth.

The following table shows the total premium production of life and non-life branches in 2016 and developed world and developing countries with growth rates shown comparatively Turkey:

**Table 2. World Premium Production Development (2016/12)**

<b>Real Premium Increase</b>	<b>Life</b>	<b>Non-life</b>	<b>Total</b>
Developed countries	-0.5%	2.3%	0.7%
Emerging markets	17%	9.6%	14%
World	2.5%	3.7%	3.1%
Turkey	23.4%	19.8%	20.2%

Source: Swiss Re 2016 Sigma Report

In world total insurance premium production, developed markets are 80% in 2016, while emerging markets have a 20% share. However, since premium increase rate is higher, the share of emerging markets in total production increases with years. The share of emerging markets in global premium production, which was 13% in 2009, reached 20% by the end of 2016.

**Table 3. Advanced / Emerging Markets Premium Production (2016/12)**

Distribution of World Premium Production in 2016			
Billion (USD)	Life	Non Life	Total
Dünya World	2.617	2.115	4.732
Advanced Markets	2.111	1.688	3.799
Emerging Markets	506	427	933

Source: Swiss Re 2016 Sigma Report

In 2016, per capita insurance premium production in the world was \$ 638. This includes \$ 353 in life and \$ 285 in Non-Life premiums. Turkey with total premiums of US \$ 164 per capita production ranks 60th in the world. Turkey has risen two places in the world ranking by 2015.

**Table 4. Per Capita Premium Production**

Per Capita Premium Production (USD)	Life	Non-Life	Total
Advanced Markets	1.954	1.550	3.505
Emerging Markets	69	80	149
Asia	229	114	343
USA	680	955	1635
Europa	962	658	1620
<b>Turkey</b>	<b>21</b>	<b>143</b>	<b>164</b>
<b>World</b>	<b>353</b>	<b>285</b>	<b>638</b>

Source: Swiss Re 2016 Sigma report

Last year, the ratio of insurance premiums to GDP in the world (insurance prevalence) was 6.3%. Of which 3.5% were life and 2.8% were non-life premiums. Turkey 1,55'lik insurance with participation percentage was ranked 73rd in the world. This ratio is considered to be one of the most important factors in the development of foreign capital in the insurance sector to my country. Turkey declined compared to the previous year, a step in this order.

**Table 5. World Premium Production Prevalence Rate (2016/12)**

GNP / Primary	Life	Nonlife	Total
Advanced Markets	3,6%	4,5%	8%
Emerging Markets	1,7%	1,5%	3,2%
Asia	2,7%	3,8%	6,5%
USA	3,7%	1,9%	5,6%
Europa	4%	2,7%	6,7%
Turkey	0,19%	1,36%	1,55%
World	3,47%	2,81%	6,28

Source: Swiss Re 2016 Sigma Report

Investment incomes of insurance companies operating in non-life branches are decreasing due to falling interest rates. The net investment income of non-life insurance companies in the United States, which was 4.5% in 2007 and 3.6% in 2015, fell to 3.1% in 2016. Policy and pricing issues are becoming more important in an environment where interest rates are gradually falling.

The long-term low interest environment in developed economies continued to be one of the most important problems for life insurance companies in 2016. In addition to lower bond yields following Brexit, low interest rates reduce investment income, lowering capital value and most importantly reducing profitability.

Surveys and surveys among insurance companies show that the low interest rate as well as the most worrying risk factor in the sector is the legal regulations. The difficulties of adaptation to the new regulation and the extra costs to be incurred in the harmonization process concern the sector.

In this context; According to the Swiss Re report, a modest growth is expected in 2017 and 2018, excluding life. Growth outside life in the next two years will be the locomotives again developing countries and it is predicted that production in these countries will increase by around 7-8% and growth in non-life production in developed countries will slow down in the coming years due to increasing inflation rates and measured economic growth, In light of these predictions, the global non-life market is expected to grow by 2.2% in 2017 and by 3% in 2018.

### **3. World Life And Retirement Sector Evaluation**

Insurance sector is one of the most important sectors that provide resources to national economies. It can be said that there is a relationship between the development of the insurance sector and the development of the national economy in order to provide long-term resources. Due to the attractive nature of the domestic investors and foreign investors in the insurance sector, the competition rate is increasing. (Akyüz & Kaya, s. 360).

Despite the tough conditions in the world, premium production in the life branch increased by 4.0%. In developed countries life premium production grew by 2.5%. In developing countries, this rate has grown by 11.7%, contributing to the successful performance of Asian countries.

The real world growth rates for the years 2014 and 2015 are given in the table below:

**Table 6. Life Branch Real Growth Rate**

Sector	2014	2015
	Total Production (Million TL)	Total Production (Million TL)
<b>Advanced Markets</b>	%3,8	%2,5
<b>Emerging Markets</b>	%6,8	%11,7
<b>Grand Total</b>	%4,3	%4,0

Source: Sigma Magazine, World Insurance, No: 3/2016

The table below shows the distribution of total premium production between life and non-life branches and continents in 2015:

**Table 7. Life Branch Real Growth Rate**

MİLYAR (\$) BILLION	Hayat Life
<b>USA</b>	<b>668</b>
USA	602
Latin America and Caribbean	66
<b>Europa</b>	<b>872</b>
West Europa	857
Middle and Eastern Europa	15
<b>Asia</b>	<b>904</b>
Advanced Asian Markets	579
Emerging Asian Markets	312
Middle and Eastern Europa	13
<b>Africa</b>	<b>44</b>
<b>Oceania</b>	<b>45</b>
<b>World</b>	<b>2533</b>
Advanced Markets	2090
Emerging Markets	444

Source: Sigma Magazine, World Insurance, No: 4/2015

In the years to come, life premium production will continue to grow both in developed and developing countries. Particularly in Indonesia and Malaysia, it is expected that the effect of monopoly insurance, which is growing rapidly, will contribute to the sector in life branch. On the other hand, growth in the life branch in Latin America has remained low in recent years due to intense price competition, low demand and economic fluctuations.

Interest rates and changes in macroeconomic and financial markets will continue in the future as they become factors that determine the likely course of life premium production in the world.

#### 4. Turkish Insurance Sector Assessment

39 Non-life Insurance Sector in Turkey, 18 Life and Pensions, Insurance 4 Life and a total of 63, including two in the reinsurance field, Reinsurance and Pension company operates. In 2016, total premium production of TL 40.5 billion was realized in the sector. Premium production increased by 30.5% compared to 2015 and the sector grew by 20.2% in real terms. Real growth rate was 19.8% in non-life branches and 23.4% in life insurance group.

The insurance sector is generally in parallel to GDP in emerging markets. As the per capita income in the countries increases, the share allocated to insurance increases and the total premium production increases in the economy at a higher rate, while the sector is shrinking faster than it is in the economy. Insurance also shows a similar development in our country. Our country's insurance sector started to recover from 2009 with the decrease of the effects of the economic crisis experienced in 2008 and entered a high rate of real growth.

**Table 8. Curve of Direct Premium Production for Years**

Billion	2012	2013	2014	2015	2016
Non life Direct Premium	16.796,00	20.370,00	22.130,00	26.597,00	34.509,00
Life Direct Premium	2.678,00	3.350,00	3.228,00	3.700,00	4.963,00
<b>Total Direct Premium</b>	<b>19.474</b>	<b>23.720</b>	<b>25.358</b>	<b>30.297</b>	<b>39.473</b>
Nominal Change	15,98	21,8	6,91	19,48	30,29
Real Change	10,68	12,27	1,66	12,65	26,64
Non life Exchange (%) (Nominal)	18,66	21,28	8,64	20,18	29,75
Life change (%) (Nominal)	1,58	25,06	-3,62	14,62	34,13
Non life change (%) (Real)	13,24	11,79	3,3	13,32	26,12
Life change (%) (Real)	-3,06	15,28	-8,36	8,07	30,38
<b>GDP</b>	<b>1.569.672</b>	<b>1.809.713</b>	<b>2.044.466</b>	<b>2.337.530</b>	<b>2.590.517</b>
Nominal Change (%)	12,56	15,29	12,97	14,33	10,82
Reel Change (%)	4,79	8,49	5,17	6,06	2,88
Consumer Price Index (%)(**)	6,16	7,4	8,17	8,81	8,53

(\*) Real values are calculated based on the chain linked volume index.

(\*\*) TÜFE (2003=100, Dönem Sonu, Yıllık Yüzde Değişim)– CPI(2003=100, End of Period, Annual Percentage Change)

**Source:** T.C. Başbakanlık Hazine Müsteşarlığı Sigorta Denetleme Kurulu Sigortacılık ve Bireysel Emeklilik Faaliyetleri Report, 2016

As seen in the table above, it is clear that the insurance sector has increased more than the GDP, when compared to the nominal and real increase rates of direct premium amounts in the last five years turnover Life and Life branch and GDP growth rates. GDP grew by 10.8% in 2016, while the insurance sector grew by 30.2% and the ratio of total premium production to GDP was 1.55%. Insurance sector in Turkey is one of the market is still growing. The fact that the share of premium production per capita and non-life premium production in GDP is lower than in EU countries indicates that there is a significant potential in the sector.

35.5 billion TL of the total premium production is in non-life insurances and 5 billion TL is in life insurances. The share of non-life branches in premium production is 88% while the share of life branch is 12%. The weight of non-life insurers traditionally undergoing total premium production in our country has not changed in 2016 as well. The companies have secured a total of TL 89.9 trillion in guarantee for the insured during the year in exchange for the policies issued and premiums received. Total amount of collateral increased by 4.4% compared to the year 2015 and is equivalent to 35 times of GDP. These figures show the importance of the insurance sector for economic stability and growth.

In the face of the undertakings undertaken, corporations paid a net compensation of 18.1 billion TL to those who were harmed by the insured during the year. 15.2 billion TL of compensation payments were made in non-life insurances and 3 billion TL in life insurances.

Turkey Insurance Sector Non-life premium production is realized when looking at the total premium production of TL 35.5 billion in premiums in 2016 compared to 2015 increased by 30% and the sector grew in real terms by 20%. The non-life sector growth rate of traffic (including Green Card) premiums has increased by 79%. As of the end of September 2017, a growth rate of 10% was recorded in non-life branches, which indicates a contraction of about 1% in real terms. The decrease in premium production by 3.6% in the traffic sector with the highest production rate due to the introduction of the ceiling price in traffic premiums caused the sector to shrink in the first 9 months.

When we look at the financial results of the sector, it is a year in which the profitability ratio of equity closed by profit of 1,140 million TL was realized as 12,42% after 2015 loss. According to the latest balance sheet results, Non-Life Sector earned a profit of TL 1,219 million in the third quarter of 2017 while the return on equity was 10,42%.



In terms of Technical Profit Loss, the sector has written a loss at a significant level despite the increase in premiums it has provided in the last 5 years, and the sector's loss reached its maximum level in 2012. Despite technical profit of TL 436 million in the life branch in 2012, the sector incurred a technical loss of TL 123 million due to technical losses of TL 658 million in non-life branches. As of the end of 2016, in the life branch, technical profit of 888.5 million TL was obtained while in the non-life branch, the sector achieved technical profit of 1.8 billion TL in total. Technical profitability has the largest share in the branch with 27%, followed by the road sector with 25% share, while 50% of the technical profitability consists of two branches. However, according to the data of the third quarter of 2017, 952.2 million TL in life branch and 1.6 billion TL technical profit were obtained outside life.

After 2016, which is very difficult in terms of profitability, it can be said that the sector has been benefiting by strengthening its self- Especially in the traffic branch which increased exponentially in 2017, although the steps to compensate the inadequacy of the price level have been taken, the continuation of the restructuring of the reserves that have not yet reached the required level and the negative effect of the increase of the minimum wage on the damage costs, the positive return of the technical profitability of the branch, more delay. As of the end of the third quarter of 2016, the company wrote a loss of TL 211 million while it wrote a technical loss of TL 240.8 million according to the data of the third quarter of the year 2017. The increasing price level of the company brought anticipation to reduce the loss in the future. It also faces the risk of avoiding having insurance.

Price-driven competition in recent years, Turkey does not happen again the damage caused by the insurance industry and insurance companies are required to turn their focus from the price competition and customer service for the development of the sector in the coming years. It is important that the insurance companies, which are expected to serve the development of the sector, should set their priorities in order to better understand the needs of the customers and to develop innovative products and services.

#### **4. General Overview Of Insurance Companies**

In the insurance and private pension sectors in our country, 57 of the 61 insurers, reinsurance and pension companies operating at the end of 2016 are organized as branches of corporations, two of which are cooperative companies and two of which are established abroad. Of the 61 companies operating, 37 are in non-life insurance, 4

are in life insurance, 18 in life and retirement, and 2 in reinsurance. As of the end of 2016, a total of 19.511 people are employed in 61 insurance, reinsurance and pension companies operating in this framework. On the other hand, established to mediate the insurance operations and Turkey Chambers and Commodity Exchanges held in the Union before the number of agents registered with the sheet 15 575, while the number of authorized private pension intermediaries registered sales EGM 36,000 to mediate in the private pension system. Of the 1,265 real person insurance experts available in the sector, 503 are solely employed and 762 are legal persons working for insurance experts. There are also 2,356 agricultural experts in the sector. Of the 123 actors registered in the actuaries registry, there are 40 actuaries operating in agreement with the companies).

Unchanged for many years a structural feature of Turkey's insurance sector, approximately 67% of non-life premium volume, while life premium production is carried out by a very important part of the top ten companies as approximately 85%. In the third quarter of 2017, total premium production of 38 companies operating in the non-life insurance branch was TL 27.3 billion. 70% of non-life premiums produced by 38 companies are produced by the top 10 companies. The remaining 1.1% market share is falling to 28 players who have 30% of the market.

This leads to the fact that the insurance market is largely dominated by powerful corporations and, consequently, the life cycle of small and medium-sized companies is shrinking. In addition, regulations that have recently been put into practice, especially regarding capital adequacy, make the situation of such companies even more difficult. On the other hand, Turkey insurance industry is in a serious but not to the inflow of foreign capital markets, the current low insurance rate, whereas the high potential insurable continues to attract the attention of foreign investors.

**Table 9. Insurance Sector Foreign Direct Investment**

USD DOLAR	2004	2017
Number of domestic companies	40	10
Number of Total Companies	53	61
market share of domestic capital companies	71,50%	29,10%
Number of domestic companies in the top 20 Companies	15	4

## 5. Customer / Product And Service / Channel

"The In marketing, distribution channels are the process followed by the access of the products and services from the producer to the consumer. Another definition is the

system, which brings together the institutions and institutions that bring the goods to the place where they are consumed and communicate with each other. There are great benefits for distribution channels, service or manufacturing companies. Companies can have a broad knowledge of the target markets and consumers through distribution channels and have more opportunities to market their products (Murtatoğlu, 2012, s. 30).

The growth of the insurance sector is a sector that depends on the public's awareness of insurance and the level of prosperity. It is a rapidly growing and developing sector globally due to providing resources and employment to the national economy. Premium production in the sector is realized through insurance companies, agencies, banks and brokers (Çakar & Yıldırım, 2015, s. 53).

In the insurance industry today, consumer expectations are rising and technological access is becoming widespread, which means that there is a more conscious customer profile. In this environment, insurance companies that do not switch to a "customer focused" business model face the risk of lagging behind their competitors. Companies have adopted approaches that focus on new customer acquisition, customer retention and customer value to achieve sustainable profitability that has accelerated to provide fast, practical and creative solutions that are compatible with the digital world in accordance with changing consumer profiles.

In particular, it is observed that the companies are in the development of products, services and channels based on customer needs and expectations that best meet customer needs and customer loyalty. Companies provide services to every customer from a wide range of products, ensuring that they have a lot of assets, from their own to their health, from work to residence, from wallet to house, taking into account the needs of their customers. In particular, the companies that prefer bancassurance as the main distribution channel analyze the portfolio used jointly with the bank in the context of customer segmentation, offering different alternatives for customers to meet all their needs under one roof.

Companies, however, offer products and services according to customer life-time values as a result of analysis of customers' needs and expectations closely in order to provide insurance support depending on the life stages of customers.

It has been observed that new channels have been experiencing a new life by creating new strategic experiences with customer needs analyzes that are compatible with the

digital world and that they are working towards providing customers with access to the digital channels and councils and offering insurance products to the right customer portfolio with new technologies that will measure customer habits. Digital developments are emerging as a factor in determining the new course in the insurance industry when opening new doors for customer access and service provision to insurance companies. In particular, segmentation studies are carried out by analyzing the management, customer lifetime value, attitudes and behaviors of customer relations in the acquisition of new customers.

In terms of evaluating customer satisfaction, using digital techniques provides more accurate testing. With digital techniques, customer interaction can be organized to identify target customers, manage policies, and make sales.

## **6. Conclusion**

The aim of this study was to evaluate the development of the world and in Turkey evaluating the development of the insurance sector. It has been mentioned that it has become an important market for foreign investors. It has been mentioned that the insurance sector is an alternative to other distribution channels with digital transformation in our country.

New marketing techniques are introduced with increasing insurance volume. In the world and Turkey as a result of the growth of the insurance industry increasingly digital conversion with the technological infrastructure was more widespread. Digital transformation and insurance companies increased their premium production. Insurance companies have turned to digital distribution channels to find customers and provide more effective services.

With the digital transformation, more accurate marketing opportunities have emerged. Insurance companies provide better quality services to the insurance sector by doing customer analysis. The increase in premium production may be due to many reasons, but the contribution to premium production using today's technologies cannot be excluded.

More investment in digital transformation will contribute to the development of the insurance sector. Nowadays, with the technology available in every field, more contributions can be made to insurance premium production. G It is evaluated that

foreign investors will be more interested in the developing insurance sector and that they will grow in the finance sector with the progressive digital transformation.

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